Refine Search

Search Results -

Terms	Documents
(bus near3 arbitration) and (grant$3 same concurrent same latenc$3)	4

Database:

US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
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Derwent World Patents Index
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Search:

L1

Refine Search

Recall Text   Clear   Interrupt

Search History

DATE: Friday, November 04, 2005   Printable Copy   Create Case

Set Name Query	Hit Count	Set Name
side by side		result set

DB=PGPB,USPT,USOC; PLUR=YES; OP=OR

| L1 | (bus near3 arbitration) and (grant$3 same concurrent same latenc$3) | 4 | L1 |

END OF SEARCH HISTORY

Refine Search

Search Results -

Terms	Documents
(bus near3 arbitration) and (grant$3 same concurrent same latenc$3)	0

Database:
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
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JPO Abstracts Database
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Search: L2

[Refine Search]

[Recall Text] [Clear] [Interrupt]

Search History

DATE: Friday, November 04, 2005   Printable Copy   Create Case

Set Name Query	Hit Count	Set Name
side by side		result set
DB=EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR		
L2 (bus near3 arbitration) and (grant$3 same concurrent same latenc$3)	0	L2
DB=PGPB,USPT,USOC; PLUR=YES; OP=OR		
L1 (bus near3 arbitration) and (grant$3 same concurrent same latenc$3)	4	L1

END OF SEARCH HISTORY

Refine Search

Search Results -

Terms	Documents
arbitration and (grant$3 same concurrent same latenc$3)	10

Database:

US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
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Search:

L3

[Refine Search]

[Recall Text] [Clear]   [Interrupt]

Search History

DATE: Friday, November 04, 2005   Printable Copy   Create Case

Set Name Query	Hit Count	Set Name
side by side		**result set**
DB=PGPB,USPT,USOC; PLUR=YES; OP=OR		
L3 arbitration and (grant$3 same concurrent same latenc$3)	10	L3
DB=EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR		
L2 (bus near3 arbitration) and (grant$3 same concurrent same latenc$3)	0	L2
DB=PGPB,USPT,USOC; PLUR=YES; OP=OR		
L1 (bus near3 arbitration) and (grant$3 same concurrent same latenc$3)	4	L1

END OF SEARCH HISTORY

Refine Search

Search Results -

Terms	Documents
arbitration and (grant$3 same concurrent same latenc$3)	0

Database:
```
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins
```

Search:
```
L4
```

Refine Search

Recall Text   Clear   Interrupt

Search History

DATE: Friday, November 04, 2005   Printable Copy   Create Case

Set Name	Query	Hit Count	Set Name
side by side			result set
	DB=EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR		
L4	arbitration and (grant$3 same concurrent same latenc$3)	0	L4
	DB=PGPB,USPT,USOC; PLUR=YES; OP=OR		
L3	arbitration and (grant$3 same concurrent same latenc$3)	10	L3
	DB=EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR		
L2	(bus near3 arbitration) and (grant$3 same concurrent same latenc$3)	0	L2
	DB=PGPB,USPT,USOC; PLUR=YES; OP=OR		
L1	(bus near3 arbitration) and (grant$3 same concurrent same latenc$3)	4	L1

END OF SEARCH HISTORY

Refine Search

Search Results -

Terms	Documents
(grant$3 same concurrent same latenc$3)	11

Database:

US Pre-Grant Publication Full-Text Database
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JPO Abstracts Database
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Search:

L5

Refine Search

Recall Text ⬍   Clear   Interrupt

Search History

DATE: Friday, November 04, 2005   Printable Copy   Create Case

Set Name Query	Hit Count	Set Name
side by side		result set
DB=PGPB,USPT,USOC; PLUR=YES; OP=OR		
L5 (grant$3 same concurrent same latenc$3)	11	L5
DB=EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR		
L4 arbitration and (grant$3 same concurrent same latenc$3)	0	L4
DB=PGPB,USPT,USOC; PLUR=YES; OP=OR		
L3 arbitration and (grant$3 same concurrent same latenc$3)	10	L3
DB=EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR		
L2 (bus near3 arbitration) and (grant$3 same concurrent same latenc$3)	0	L2
DB=PGPB,USPT,USOC; PLUR=YES; OP=OR		
L1 (bus near3 arbitration) and (grant$3 same concurrent same latenc$3)	4	L1

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» Key

IEEE JNL	IEEE Journal or Magazine
IEE JNL	IEE Journal or Magazine
IEEE CNF	IEEE Conference Proceeding
IEE CNF	IEE Conference Proceeding
IEEE STD	IEEE Standard

Modify Search

((bus and arbitration <in>metadata) <and> (laten* and grant*<in>metadata))   »

Check to search only within this results set

Display Format: ● Citation   ○ Citation & Abstract

1. **SAMBA-bus: A high performance bus architecture for system-on-chips**
   Ruibing Lu; Cheng-Koh Koh;
   Computer Aided Design, 2003. ICCAD-2003. International Conference on
   9-13 Nov. 2003 Page(s):8 - 12
   Digital Object Identifier 10.1109/ICCAD.2003.1257568

   AbstractPlus | Full Text: PDF(475 KB)   IEEE CNF

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SAMBA-bus: A high performance bus architecture for system-on-chips

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Abstract

A high performance communication architecture, SAMBA-**bus**, is proposed in this paper. In SAMBA-**bus**, multiple compatible **bus** transactions can be performed simultaneously with only a single **bus** access **grant** from the **bus** arbiter. Experimental results show that, compared with a traditional **bus** architecture, the SAMBA-**bus** architecture can have up to 3.5 times improvement in the effective bandwidth, and up to 15 times reduction in the average communication **latency**. In addition, the performance of SAMBA-**bus** architecture is affected only slightly by **arbitration latency**, because **bus** transactions can be performed without waiting for the **bus** access **grant** from the arbiter. This feature is desirable in SoC designs with large numbers of modules and long communication delay between modules and the **bus** arbiter.

Index Terms

Inspec

Controlled Indexing
asynchronous circuits   circuit CAD   system **buses**   system-on-chip

Non-controlled Indexing
SAMBA **bus** architecture   SOC design   arbitration latency   **bus** arbiter   high performance **bus** architecture   high
performance communication architecture   long communication delay   multiple compatible **bus** transactions   system-on-
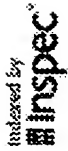chip   traditional **bus** architecture

Author Keywords
Not Available

References

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